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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/694,977 | 10/28/2003 | Chang-Woong Jeong | 5000-1-383 | 4429 |
| 33942 | 7590 | 03/28/2005 | EXAMINER | |
| CHA & REITER, LLC 210 ROUTE 4 EAST STE 103 PARAMUS, NJ 07652 | | | KIM, SANG K | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3654 | |

DATE MAILED: 03/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/694,977

Applicant(s)

JEONG ET AL.

Examiner

SANG KIM

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 12-20 is/are rejected.
- 7) ☒ Claim(s) 6-11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Claim Objections

Claims 2 and 16 are objected to because of the following informalities: Line 2, "the axial engagement" should be --an axial engagement--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 12-17 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Grant, U.S. Patent No. 4997142.

With respect to claims 1, 12-15 and 20, Grant '142 shows a spool with first and second cylindrical barrels (10a, 10b), the barrels being axially engaged face-to-face at a juncture; first and second flanges (12, 12) configured for restricting a winding area for the fine magnet wire by having a disk shape (i.e. a circular shape), being disposed to sandwich the barrels and being dimensioned to radially protrude from the barrels (10a, 10b); and ultrasonic fusion splicing points (near 16-18) formed along said juncture by setting a head of an ultrasonic fusion finger (22) on one side of first and second cylindrical barrels and by transmitting an ultrasonic wave from the head to the juncture so as to fusion splice the first and second flanges together, see figure 1.

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With respect to claims 2-3 and 16-17, Grant '142 shows each of the first and second barrels has an end, wherein the ends engaging at the juncture with a zigzag pattern, see figure 1.

The intended use of the claimed apparatus for winding an optical fiber, does not distinguish over the prior art because it relates only to the material wound on to the reel but does not impart or define any particular structural limitations to the claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 and 12-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bocciola, U.S. Patent No. 6305639 B1, in view of Grant, U.S. Patent No. 4997142.

With respect to claims 1, 12-15 and 20, Bocciola '639 shows a spool with first and second cylindrical barrels (2, 2), the barrels being axially engaged face-to-face at a juncture (near x-x); first and second flanges (3, 3) configured for restricting a winding area for the optical fiber by having a disk shape (i.e. a circular shape), being disposed to sandwich the barrels and being dimensioned to radially protrude from the barrels (2, 2); and splicing points (near x-x) formed along said juncture by welding, see figure 1.

Grant '142 shows ultrasonic fusion splicing points (near 16-18) formed along said juncture by setting a head of an ultrasonic fusion finger (22) on one side of first and

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second cylindrical barrels and by transmitting an ultrasonic wave from the head to the juncture so as to fusion splice the first and second flanges together, see figure 1.

Bocciola '639 discloses the claimed invention except for an ultrasonic welding.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use an ultrasonic welding as taught by Grant '142 since using an ultrasonic welding is well known and commonly practiced in the welding industry.

With respect to claims 2-3 and 16-17, as advanced above, Bocciola '639 does not show a zigzag pattern to engage the both ends together.

Grant '142 shows each of the first and second barrels has an end, wherein the ends engaging at the juncture with a zigzag pattern, see figure 1.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the ends of Bocciola '639 with a zigzag pattern as taught by Grant '142, in order to provide a better interlocking between both barrels.

With respect to claims 4-5 and 18-19, as advanced above, Bocciola '639 shows wherein at least one of the first and second flanges includes a through hole (12) for the passing the star end of the optical fiber, see figure 2.

Allowable Subject Matter

Claims 6-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SANG KIM whose telephone number is 703-305-3712. The examiner can normally be reached Monday through Friday from 8:00 A.M. to 5:30 P.M. alternating Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki, can be reached on (703) 308-2688. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SK

3/12/05



KATHY MATECKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600